South Pacific Ocean.—Of the several cyclonic disturbances reported in the South Pacific Ocean during August, only one of any significance occurred. This was a depression off the coast of Chile that appeared on August 20 and which until the 23d occasioned moderate to whole gales, with accompanying heavy snow and rain squalls. The Danzig S. S. *Gedania*, Capt. L. Schroeder, Buenos Aires to San Pedro, came within its influence on the 20th. Mr. F. Hesse, third officer, reports that the lowest pressure observed was 28.78 inches, occurring at 4 a. m. on the 20th in the Straits of Magellan. The wind at the time of lowest pressure was W. by N., force 7–8. By the 23d the gale had increased to force 8–10 from the southwest.

DETAILS OF THE WEATHER IN THE UNITED STATES

GENERAL CONDITIONS

The feature of the month was the very pronounced excess in precipitation over the upper Mississippi Valley and a much less excess over North Pacific Coast States, northwest Texas, and portions of the New England and Middle Atlantic States. (See inset on Chart IV.) This fact may or may not be significant of a return to normal rainfall in those regions that have experienced a shortage in the last few months.

Temperature was uniformly above normal in the South and in a less degree in some portions of the North. (See Chart III.) The usual details follow.

CYCLONES AND ANTICYCLONES

By W. P. DAY

There were few well-defined cyclonic disturbances charted over the United States during the month, the interchange between polar and equatorial air being evidenced in most cases by a line of discontinuity separating the northerly from the southerly winds in a trough of lower pressure moving eastward across the country. Within these troughs local areas of diminished pressure gave some evidence of cyclonic circulation and their day-to-day movement could be charted; but at all times the great troughs of which these low areas were a part were the important features of the weather charts.

On the other hand, over the adjacent portion of the Atlantic Ocean two tropical cyclones developed and reached hurricane intensity. A detailed description of these two storms is given under the section devoted to storms and weather warnings for the Washington Forecast District and also under the section headed "North Atlantic Ocean."

The high-pressure areas were mostly of the Alberta type, and were, as a rule, quite regular in movement and persistent as individual areas.

FREE-AIR SUMMARY

By V. E. JAKL, Meteorologist

Tables 1 and 2 well represent the upper-air conditions that prevailed at the six aerological stations during the month. As will be noted, the departures from normal were on the whole of almost negligible value. Furthermore, the record shows what is not revealed in the tables, that, with not many important exceptions, the conditions on individual days were practically the same as the averages for the month. This equable condition of the upper air naturally resulted from the lack of cyclonic activity during the month. (See Cyclones and Anticyclones above.)

Considering first the temperature, it is apparent that the lapse rate was of about normal value at all stations; consequently the slight departures in temperature that prevailed on the ground extended vertically with but little change. Therefore Chart III, this REVIEW, showing for the surface slightly cooler weather than normal over northern sections and slightly warmer weather over southern sections, applies as well to the upper air for sections east of the Rocky Mountains.

Relative humidity was quite uniformly normal or close to normal at all elevations at the various stations, which, combined with approximately normal temperatures, gave vapor pressures that were also about normal, as the computed results show in Table 1. However, the departures from normal in relative humidity and vapor pressure, unless of pronounced magnitude, are of little significance, inasmuch as the vapor content of the upper air can change rapidly, while the kite flights, on which the averages are based, are usually made in fair weather.

Winds, as shown by both kite and pilot-balloon observations, were generally about normal in direction and velocity, the usual direction for the greater portion of the country being from south to west. An approximate allocation of the normal winds for the month would be about southwest for the middle valley region and about west for the eastern portion of the country, with a general tendency toward veering somewhat with altitude. An important exception, however, in the prevalent winds for the month is noted at Due West, where there was a decided northerly tendency at moderate and high elevations, in marked contrast to normal westerly winds. This deviation from the normal direction at Due West may be attributed to the unusual pressure distribution prevalent over the southeastern portion of the country, where the normal August condition of high pressure extending from the Atlantic and diminishing westward was conspicuously absent during the greater portion of the month. (See Storms and Weather Warnings, New Orleans Forecast District, p. 411–412.) At Key West and San Juan, balloon observations showed resultant winds from an easterly direction at all altitudes, which probably represents the normal wind condition at those stations. Easterly upper winds were observed also at many other stations (except the more northerly ones), particularly in the latter portion of the month. Such occurrences of easterly winds, however, were too infrequent and were associated with too low velocities to show an appreciable easterly component in the monthly resultants for any level.

A number of instances of high velocity observed in two-theodolite pilot-balloon observations are recorded. The value of these observations lies in the undeniable proof they give that such velocities actually occur quite frequently, as the acceptance of such observations is not dependent on confidence in the normal behavior of the balloons. Moreover, such observations prove beyond dispute the existence of high velocities aloft on days when, from the surface barometric gradients, low velocities to great depth might be construed. Outstanding instances of high velocities observed during the month by the two-theodolite method are as follows: On the 4th, Ellendale showed in a two-theodolite observation, a wind increasing from 0.6 meter per second on the ground to 38 meters per second at 9,500 meters altitude; and on the 9th, a wind velocity of 3 meters per second on the ground, increasing to 40 meters per second at 8,000 meters altitude. Broken Arrow, in a two-theodolite observation on the 25th, showed a light wind averaging

about 4 meters per second extending up to 8,000 meters, above which there was a steady increase to 32 meters per second at 11,500 meters. On the same day (25th) a two-theodolite observation made at Groesbeck, 300 miles to the south of Broken Arrow, showed light winds from the ground to the upper limit of the observation, 14,000 meters above sea level. Incidentally, this record gives Groesbeck the distinction of obtaining the highest two-theodolite observation made during the month at any station, and showed an ascensional rate remarkably close to the adopted standard for single-theodolite work.

A series of two-theodolite observations made at Broken Arrow on the 18th shows the progressive change in wind direction and velocity up to high altitudes, attending the approach of a low-pressure area from the northwest. At 7 a. m. the low-pressure center was at Lander and at 7 p. m. over Pueblo. The aerological record given below is characteristic of the general type of pressure change represented by this low. The winds veered with altitude from southerly on the ground to northwesterly in the high altitudes, while at nearly all altitudes there was a well-defined veering in direction with time. Simultaneously with the veering in direction, there was a building up in wind force, the increase apparently progressing from both ends, i. e., from aloft and near the ground toward the middle altitudes, until at the last observation, there was a substantial increase in wind strength throughout the column, as compared with that shown in the first observation. The data are given in the following table:

Altitude m. s. l. (meters)	7 a. m.		11 a. m.		1:43 p. m.		3:26 p. m.		5:18 p. m.	
	Direction	Velocity (m. p. s.)	Direction	Velocity (m. p. s.)	Direction	Velocity (m. p. s.)	Direction	Velocity (m. p. s.)	Direction	Velocity (m. p. s.)
233	sse.	5	sse.	9	sse.	8	sse.	8	s.	9
500	s.	11	sse.	8	s.	10	sse.	9	s.	11
750	ssw.	12	s.	10	s.	11	s.	10	s.	12
1,000	ssw.	10	ssw.	11	s.	10	s.	10	s.	13
1,500	ssw.	8	ssw.	7	ssw.	11	ssw.	11	ssw.	11
2,000	s.	2	sw.	4	ssw.	10	ssw.	11	ssw.	10
2,500	sse.	2	ssw.	5	ssw.	7	sw.	7	sw.	8
3,000	sse.	3	ssw.	5	sw.	5	w.	8	w.	8
3,500	sse.	3	s.	5	w.	7	w.	9	wnw.	10
4,000	se.	3	s.	4	w.	7	wnw.	8	nw.	11
4,500	e.	3	ssw	5	wsw.	6	w.	8	nw.	12
5,000	se.	3	wsw.	4	wsw.	5	w.	10	nw.	11
6,000	enc.	4	sw.	3	nw.	10	nw.	11	nw.	6
7,000	w.	4	nw.	9	nw.	10	nnw.	9	nw.	7
8,000	w.	7	wnw.	9	nw.	14	wnw.	12	wnw.	12
9,000	wnw.	10	wnw.	14	nw.	9	wnw.	10	wnw.	12
10,000	wnw.	14	wnw.	12	wnw.	12	wnw.	15	wnw.	14
11,000			wnw.	13	wnw.	14	wnw.	15	wnw.	12
12,000			wnw.	16	wnw.	14	wnw.	17		
13,000					wnw.	12	wnw.	15		

A series of kite flights made at Drexel on the 14th shows the sequence of meteorological conditions during a period of about 16 hours preceding a severe thunder storm. At 7 a. m. of this date, corresponding in time with the first observation, Drexel was in front of an extensive area of low pressure consisting of a number of more or less well-defined centers. By 7 a. m. of the 15th, Drexel lay to the southeast of the center of a small area of low pressure. The aerological record shows at first a rise in temperature at most altitudes, and then a moderate fall, the fall apparently occurring at progressively higher altitudes. Coincidentally with the deepening of the column of falling temperature the point of highest humidity rose in altitude, the last flight giving a record of 94 per cent at 2,780 meters altitude [not shown in table]. It can be plausibly inferred that a deep column of moist air having an adiabatic lapse rate was eventually built up by this process, from which rain necessarily followed. The surface meteorological record shows that rain began soon after the last flight, but that the heaviest rain fell during a brief period when the surface wind, which was generally south, became southwest. The circumstance of this brief downpour is undoubtedly an example of the underrunning effect of an abrupt change in wind direction, typical of the squall line in the southern portion of some depressions. Temperatures, humidities, and wind directions for this series of flights are given in the following table:

Altitude m. s. l. (meters)	8 a. m.			11 a. m.			3 p. m.			9 p. m.		
	Temperature (° C.)	Relative humidity (per cent)	Wind direction	Temperature (° C.)	Relative humidity (per cent)	Wind direction	Temperature (° C.)	Relative humidity (per cent)	Wind direction	Temperature (° C.)	Relative humidity (per cent)	Wind direction
396	16.9	82	s.	25.0	72	s.	27.7	71	se.	25.5	80	sse.
500	17.6	81	s.	24.2	73	s.	26.9	69	sse.	24.5	74	s.
1,000	19.5	79	ssw.	20.5	80	sse.	23.1	70	s.	20.7	58	sw.
1,500	16.7	93	sw.	18.3	89	ssw.	19.2	81	ssw.	18.3	59	sw.
2,000	16.4	45	wsw.	15.5	53	sw.	17.2	87	ssw.	15.1	59	sw.
2,500	12.9	49	wsw.	14.3	48	sw.	12.2	85	ssw.	11.5	70	sw.
3,000	9.3	52	wsw.	10.9	51	sw.	9.8	65	ssw.	------	------	------
3,500	5.8	56	wsw.	7.6	53	sw.	7.1	51	ssw.	------	------	------
4,000	------	------	------	------	------	------	4.4	39	sw.	------	------	------

TABLE 1.—*Free-air temperatures, relative humidities, and vapor pressures during August, 1924*

TEMPERATURE (°C.)

Altitude m. s. l. (m.)	Broken Arrow, Okla. (233 m.)		Drexel, Nebr. (396 m.)		Due West, S. C. (217 m.)		Ellendale, N. Dak. (444 m.)		Groesbeck, Tex. (141 m.)		Royal Center, Ind. (225 m.)	
	Mean	Departure from 7-yr. mean	Mean	Departure from 9-yr. mean	Mean	Departure from 4-yr. mean	Mean	Departure from 7-yr. mean	Mean	Departure from 6-yr. mean	Mean	Departure from 7-yr. mean
Surface	27.1	0.0	22.7	+0.1	25.5	−0.1	19.4	−1.1	27.7	+0.8	24.0	+0.2
250	27.0	0.0	------	------	25.2	0.0	------	------	26.7	+0.7	23.7	+0.1
500	25.8	+0.2	22.2	0.0	23.0	+0.3	19.2	−1.1	24.8	+0.6	21.5	+0.1
750	24.7	+0.3	21.5	+0.1	21.6	+0.5	18.2	−1.2	23.7	+0.6	19.7	0.0
1,000	23.6	+0.5	20.8	+0.4	20.0	+0.5	17.1	−1.1	22.9	+0.8	18.3	+0.1
1,250	22.1	+0.5	19.9	+0.7	18.5	+0.5	16.2	−0.7	21.7	+0.9	16.9	+0.2
1,500	20.6	+0.6	18.8	+0.9	17.1	+0.6	14.9	−0.6	20.5	+1.1	15.4	+0.1
2,000	17.2	+0.7	16.4	+1.5	13.8	+0.4	12.3	−0.3	18.0	+1.5	13.1	+0.5
2,500	13.7	+0.6	13.6	+1.9	10.4	+0.3	9.3	−0.4	15.3	+1.6	10.1	+0.1
3,000	10.7	+0.8	10.4	+2.1	6.9	−0.3	6.5	−0.4	13.0	+2.0	7.0	−0.3
3,500	6.9	+0.5	7.2	+2.2	3.4	−0.9	3.6	−0.4	10.7	+2.1	4.7	0.0
4,000	3.7	+0.6	4.1	+2.4	0.8	−0.1	1.0	−0.1	7.9	+1.9	------	------
4,500	0.5	+0.9	0.6	+2.5	------	------	−2.2	−0.1	------	------	------	------
5,000	−2.4	+0.9	−2.1	+3.0	------	------	−4.1	+0.4	------	------	------	------

RELATIVE HUMIDITY (%)

Surface	68	+2	72	+2	72	+1	65	0	71	−2	66	+1
250	68	+2	------	------	72	+1	------	------	73	−1	66	+1
500	64	0	68	+1	74	0	64	0	75	+1	67	+2
750	63	+1	63	+1	74	−1	60	0	68	0	69	+3
1,000	61	0	59	−1	73	−3	58	0	68	−4	70	+4
1,250	61	0	58	−1	72	−4	55	−2	57	−3	69	+3
1,500	62	+1	57	−1	69	−6	55	−2	55	−5	68	+3
2,000	63	0	54	−4	69	−2	55	0	51	−8	59	−2
2,500	65	+2	51	−7	72	0	52	−1	49	−8	56	0
3,000	65	+3	50	−8	78	+6	53	+1	42	−11	54	+4
3,500	65	+3	53	−5	82	+10	51	+1	35	−12	47	+1
4,000	67	+3	45	−10	76	+5	49	−1	27	−11	------	------
4,500	68	+4	49	−7	------	------	46	−3	------	------	------	------
5,000	72	+4	47	−10	------	------	44	−2	------	------	------	------

VAPOR PRESSURE (*mb.*)

Surface	24.20	+1.20	19.98	+1.17	23.38	+0.33	14.16	−0.93	25.82	+0.45	19.64	+0.58
250	23.99	+1.17	------	------	23.02	+0.30	------	------	25.03	+0.48	19.44	+0.60
500	21.18	+0.77	18.61	+0.83	20.82	+0.52	13.79	−0.98	22.99	+0.76	17.34	+0.70
750	19.34	+0.99	16.32	+0.60	19.03	+0.42	12.20	−0.99	19.60	+0.37	16.24	+0.99
1,000	17.64	+0.88	14.63	+0.43	17.22	+0.09	10.89	−1.05	16.10	−0.50	15.08	+1.03
1,250	16.15	+0.85	13.51	+0.56	15.38	−0.28	9.79	−1.06	14.82	−0.13	13.47	+0.64
1,500	14.87	+0.97	12.29	+0.52	13.68	−0.38	8.94	−0.91	13.38	−0.35	11.97	+0.47
2,000	12.18	+0.68	9.89	+0.11	11.16	+0.17	7.59	−0.34	10.55	−0.70	8.57	−0.42
2,500	9.98	+0.74	7.52	−0.45	8.94	+0.01	6.20	−0.21	8.64	−0.61	5.95	−1.04
3,000	8.04	+0.70	5.68	−0.80	7.46	+0.14	5.35	+0.09	6.56	−0.90	4.16	−0.99
3,500	6.14	+0.43	4.80	−0.40	6.13	+0.23	4.51	+0.21	4.81	−0.95	2.44	−1.55
4,000	4.98	+0.47	3.44	−0.54	4.75	+0.11	3.85	+0.26	3.31	−0.91	------	------
4,500	3.84	+0.62	2.79	−0.28	------	------	3.16	+0.21	------	------	------	------
5,000	2.87	+0.62	2.00	−0.38	------	------	2.61	+0.21	------	------	------	------

TABLE 2.—*Free-air resultant winds (m. p. s.) during August, 1924*

Altitude, m. s. l. (m.)	Broken Arrow, Okla. (233 meters)				Drexel, Nebr. (396 meters)				Due West, S. C. (217 meters)				Ellendale, N. Dak. (444 meters)				Groesbeck, Tex. (141 meters)				Royal Center, Ind. (225 meters)			
	Mean		7-year mean		Mean		9-year mean		Mean		4-year mean		Mean		7-year mean		Mean		6-year mean		Mean		7-year mean	
	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel.	Dir.	Vel	Dir.	Vel.
Surface	S. 2° W.	4.2	S. 2° W.	3.5	S. 14° E.	2.1	S. 15° E.	1.7	N. 34° W.	0.6	S. 25° W.	0.1	S. 76° W.	1.4	S. 46° W.	0.8	S. 17° W.	3.2	S. 15° W.	3.1	S. 35° W.	1.6	S. 60° W.	1.5
250	S. 2° W.	4.3	S. 1° W.	3.6					N. 37° W.	1.0	S. 52° W.	0.2					S. 16° W.	4.0	S. 17° W.	4.1	S. 38° W.	1.8	S. 62° W.	1.7
500	S. 3° W.	6.4	S. 12° W.	5.2	S. 20° E.	2.9	S. 11° E.	2.2	N. 19° W.	1.5	N. 84° W.	0.6	S. 61° W.	2.1	S. 36° W.	1.2	S. 16° W.	5.8	S. 22° W.	5.9	S. 49° W.	3.2	S. 65° W.	3.6
750	S. 13° W.	7.4	S. 19° W.	5.8	S. 7° E.	4.3	S. 4° W.	3.2	N. 11° W.	1.7	N. 78° W.	0.8	S. 58° W.	3.3	S. 37° W.	2.1	S. 15° W.	6.7	S. 21° W.	6.0	S. 47° W.	5.3	S. 70° W.	4.5
1,000	S. 18° W.	7.9	S. 27° W.	6.2	S. 5° W.	4.5	S. 21° W.	3.3	N. 5° W.	1.7	N. 78° W.	0.7	S. 74° W.	3.3	S. 49° W.	2.4	S. 17° W.	6.6	S. 21° W.	5.9	S. 62° W.	6.2	S. 77° W.	5.6
1,250	S. 24° W.	7.3	S. 34° W.	5.9	S. 36° W.	5.2	S. 48° W.	3.1	N. 2° E.	2.0	N. 81° W.	1.0	S. 73° W.	3.7	S. 59° W.	2.8	S. 20° W.	6.6	S. 22° W.	5.7	S. 68° W.	7.2	S. 83° W.	6.4
1,500	S. 30° W.	7.9	S. 40° W.	5.7	S. 43° W.	5.4	S. 50° W.	3.9	N. 9° W.	2.3	N. 87° W.	1.9	S. 76° W.	4.6	S. 68° W.	3.4	S. 18° W.	6.1	S. 19° W.	5.0	S. 76° W.	7.8	S. 87° W.	7.2
2,000	S. 36° W.	6.9	S. 45° W.	5.1	S. 56° W.	6.2	S. 66° W.	5.2	N. 35° W.	3.1	N. 79° W.	2.7	S. 88° W.	5.1	S. 84° W.	4.6	S. 10° W.	5.5	S. 12° W.	4.2	S. 78° W.	8.9	S. 87° W.	8.1
2,500	S. 37° W.	6.0	S. 50° W.	5.1	S. 63° W.	9.2	S. 73° W.	6.7	N. 62° W.	4.5	N. 82° W.	4.0	S. 89° W.	7.3	N. 88° W.	8.9	S.	5.0	S. 14° W.	4.2	S. 81° W.	10.5	N. 88° W.	9.4
3,000	S. 36° W.	5.6	S. 50° W.	5.7	S. 66° W.	11.6	S. 81° W.	8.5	N. 65° W.	4.5	N. 87° W.	5.6	N. 88° W.	9.5	N. 81° W.	8.4	S. 11° W.	5.0	S. 20° W.	4.5	S. 75° W.	13.6	N. 86° W.	11.1
3,500	S. 35° W.	6.5	S. 46° W.	6.8	S. 71° W.	13.5	S. 82° W.	9.7	N. 80° W.	8.3	S. 88° W.	7.7	N. 88° W.	12.0	N. 79° W.	11.0	S. 6° W.	5.5	S. 12° W.	5.1	S. 76° W.	14.0	N. 89° W.	11.1
4,000	S. 35° W.	6.7	S. 55° W.	8.3	S. 84° W.	14.2	S. 88° W.	11.1	W.	8.8	N. 87° W.	8.9	N. 87° W.	13.1	N. 77° W.	11.5	S.	6.7	S. 11° E.	3.2	S. 82° W.	14.8	S. 87° W.	12.6
4,500	S. 49° W.	7.8	S. 62° W.	7.5	N. 81° W.	10.2	N. 71° W.	10.5	W.	8.2	N. 86° W.	11.2	N. 73° W.	15.4	N. 75° W.	11.9	S.	4.3	S. 34° E.	7.8				
5,000	S. 68° W.	16.0	S. 68° W.	16.0	N. 49° W.	11.8	N. 65° W.	12.8			S. 67° W.	18.4	N. 67° W.	14.4	N. 82° W.	12.8								

THE WEATHER ELEMENTS

By P. C. DAY, Meteorologist in Charge of Division

PRESSURE AND WINDS

The distribution of the atmospheric pressure during August, 1924, showed no important deviation from that usually prevailing during the summer months, save for the large number of slight cyclonic depressions that persisted over the lower Missouri and upper Mississippi Valleys, particularly during the first decade. These usually developed only slight pressure gradients, but were attended by frequent thunderstorms, locally heavy rains, and, as a rule, pursued short courses toward the upper Lakes, where they mainly disappeared. Slight barometric depressions were rather frequently observed over the southwestern districts, but these likewise usually developed little strength, pursued short courses, and brought but little precipitation to those districts.

The anticyclones of the month, as in the preceding July, were the dominant feature of the atmospheric circulation, and, though they developed little prominence, pursued rather definite courses across the country.

The average pressure for the month was slightly higher than normal over the Pacific Coast States, in portions of the lower Mississippi Valley, and along the west Gulf coast. Elsewhere, including Canada, the average pressure was mainly less than normal.

Compared with the preceding month the average pressure was less in practically all parts of the country, only a small area over the extreme Northeast, including the Canadian Maritime Provinces, having averages materially higher than those of July.

Due to the absence of important cyclones or anticyclones the wind circulation was mainly moderate, and such high winds as occurred were usually associated with thunderstorms, except along the immediate Atlantic coast where some high winds occurred on the 25th and 26th in connection with a tropical storm that moved northeastward near the coast during that period. This storm was particularly severe along portions of the coast from New Jersey to southern New England. At Block Island it was reported as the worst summer storm ever experienced at that place, and other points in the vicinity suffered severely from the wind and high waters.

The prevailing wind directions were mainly from southern points over the Great Plains and to the eastward, save over the more northern districts where they were from the west or northwest. Elsewhere they were variable, as is usual.

TEMPERATURE

The important feature of the temperature distribution during the month was the continued cool weather over the north central districts, which had persisted with more or less constancy from early in May until about the end of the second decade of August.

The first few days of the month were distinctly cool from the upper Mississippi Valley eastward and likewise over the Plateau and Pacific Coast States, but it was mainly warm in the central valleys and Southern States, the period being particularly warm in the central and southern Great Plains.

The week ending August 12 was cool throughout over nearly all districts from the Great Lakes and middle Mississippi Valley westward to the Pacific, but the temperatures higher than normal continued in the South, and decidedly warmer weather overspread the more eastern districts, the maximum temperatures rising above 100°, the highest for the month, in portions of the Middle Atlantic States. The week ending August 19 continued cool over all northern and most central districts, the week being decidedly cool, 6° to 9° below normal, from the northern Plains eastward to the Great Lakes and Ohio Valley. Warm weather continued during most of this period in the South, particularly from Texas and Oklahoma westward to Colorado and eastern Arizona.

The cool weather that had persisted for so many weeks over much of the central and northern portions of the country from the Rocky Mountains eastward terminated near the end of the second decade of the month, and the average temperature for the week ending August 26 was above normal over practically all districts from the Rocky Mountains eastward, the period being unusually warm over the central and southern Rocky Mountains and thence eastward to the Ohio Valley and Middle Gulf States, where locally the highest temperatures of the summer were observed and in some cases the highest ever observed in August. From the 26th to the end of the month the temperature was mainly above normal throughout, save for the last day or two, when cool weather overspread the Northwest. Over portions of the Atlantic coast this period was locally the warmest of the summer, and likewise in the interior valleys of California, where some damage to drying fruit resulted, particularly raisins.

For the month as a whole the temperature averages were below or only slightly above normal from the Great Lakes westward to Washington and Oregon, and over central and southern California and apparently over all